UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,835	10/03/2003	Yuuki Tamura	0055/054001	9903

22893 7590 04/05/2006

SMITH PATENT OFFICE
1901 PENNSYLVANIA AVENUE N W
SUITE 901
WASHINGTON, DC 20006

EXAMINER	
SONG, SARAH U	
ART UNIT	**PAPER NUMBER**
2874	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8/

Office Action Summary	Application No.	Applicant(s)	
	10/677,835	TAMURA ET AL.	
	Examiner	**Art Unit**	
	Sarah Song	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-34 and 36-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-34 and 36-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's communication filed on December 28, 2005 has been carefully considered and placed of record in the file. Claims 1, 5-8, 11-17, 19-33, 37, 39, 40, 43, 46 and 51 have been amended. Claims 3 and 35 are canceled. Claims 1, 2, 4-34 and 36-55 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 2, 11-15, 21-34, 38 and 43-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (JP 2001-236811 previously relied upon).**

4. Regarding claim 1, Tanaka et al. discloses an optical waveguide plate for a surface light emitting apparatus comprising: an end face 21 for introducing light emitted from a light source; a light emitting surface 22 outputting light introduced from said end face; wherein said end face includes a light introducing portion comprising a plurality of single notched prisms 27 which disperse incident light, and an interval between two adjacent distal notched prisms in the light introducing portion is different from an interval between two adjacent proximal notched prisms in the light introducing portion. Said single notched prisms are triangular prisms in said end face. See Figure 4.

5. Tanaka et al. does not expressly disclose the embodiment of Figure 4 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light

introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

6. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 4, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears tat the invention would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

7. Regarding claim 2, the interval between two adjacent distal notched prisms (centrally located) is greater than the interval between two adjacent proximal notched prisms (peripherally located).

8. Regarding claim 12, Tanaka et al. also discloses the claimed invention comprising notched prism 27 including a central notched prism disposed in a center (region proximate LED 40) of said light introducing portion, each including the same apex angle as the central notched prism, wherein the height of each said single notched prism increases as the distance from said light source increases. Figure 5.

9. Regarding claim 13, said plurality single notched prisms 27, including said central notched prism (proximate LED 40), each include an apex angle, each said single notched prisms

has the same apex angle as the central notched prism; a height of each of said single notched prisms other than said central notched prism increases as the distance from said central notched prism increase; and each of said single notched prisms includes an isosceles triangle. Figure 5.

10. Regarding claim 14, said plurality of single notched prisms includes a central notched prism disposed in a center (region proximate LED 40) of said light introducing portion; wherein said central notched prism has a width; and the width of said central notched prism and intervals between said central notched prism and said single notched prisms adjacent to said central notched prism are approximately equal in size. See Figure 7.

11. Regarding claim 15, said plurality of single notched prisms includes a central notched prism (proximate LD 40) disposed in center of said light introducing portion; wherein said central notched prism has a width.

12. Tanaka et al. does not expressly disclose the width of said central notched prism to be smaller than intervals between said central notched prism and said single notched prisms adjacent said central notched prism. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a smaller width of the central notched prism since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum value of a result effective variable involves only routine skill in the art. MPEP 2144.05(II)(B).

13. Regarding claim 25, Tanaka et al. discloses an optical waveguide plate for a surface light emitting apparatus comprising: an end face for introducing light emitted from a light source; a light emitting surface 22 outputting light introduced from said end face; said end face includes a light introducing portion comprising a plurality of notched prisms 27 including a central notched

prism disposed in a center of said light introducing portion (proximate LED 40); and wherein said plurality of notched prisms, including said central notched prism, each include an apex angle, and each said notched prisms has the same apex angle as the central notched prism. Said single notched prisms are triangular prisms in said end face. See Figure 5.

14. Tanaka et al. does not expressly disclose the embodiment of Figure 5 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

15. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 5, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears tat the invention would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

16. Regarding claim 27, said plurality of notched prisms are disposed in said light introducing portion and a portion of said end face is disposed between two adjacent notched prisms so as to form an interval therebetween.

17. Regarding claim 28, each of said notched prisms includes an isosceles triangle.

18. Regarding claim 29, Tanaka et al. discloses an optical waveguide plate for a surface light emitting apparatus comprising: an end face 21 for introducing light emitted from a light source; a light emitting surface 22 outputting light introduced from said end face; said end face includes a light introducing portion comprising a plurality of notched prisms 27 which disperse incident light; a flat portion 26 is disposed in a center of said light introducing portion; and wherein said plurality of notched prisms each include an apex angle which is equal to the other apex angles. Said single notched prisms are triangular prisms in said end face. See Figure 5.

19. Tanaka et al. does not expressly disclose the embodiment of Figure 5 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 5, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

21. Regarding claim 31, said plurality of notched prisms are disposed in said light a portion of said end face is disposed between two adjacent notched prisms so as to form an interval therebetween.

22. Regarding claim 32, each of said notched prisms includes an isosceles triangle.

23. Regarding claim 33, Tanaka et al. discloses light emitting apparatus comprising: a light source 40 and an optical waveguide plate 20 including an end face 21 for introducing light emitted from said light source and a light emitting surface 22 for outputting the light; and wherein said end face includes a light introducing portion comprising a plurality of notched prisms 27 which diffuse incident light, and an interval between two adjacent distal notched prisms in the light introducing portion is different from an interval between two adjacent proximal notched prisms in the light introducing portion. Said single notched prisms are triangular prisms in said end face. See Figure 4.

24. Tanaka et al. does not expressly disclose the embodiment of Figure 4 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 4, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears tat the invention

would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

26. Regarding claim 34, the interval between two adjacent distal notched prisms (centrally located) is greater than the interval between two adjacent proximal notched prisms (peripherally located).

27. Regarding claim 38, the light source is a light emitting diode 40.

28. Regarding claim 46, Tanaka et al. discloses a surface light emitting apparatus comprising: a light source 40 and an optical waveguide plate 20 including an end face 21 for introducing light emitted from said light source and a light emitting surface 22 for outputting the light; said end face including a light introducing portion comprising a plurality of notched prisms 27 including a central notched prism disposed in a center of said light introducing portion (proximate LED 40); and wherein said plurality of notched prisms, including said central notched prism, each include an apex angle, and each said notched prisms has the same apex angle as the central notched prism. Said single notched prisms are triangular prisms in said end face. See Figure 5.

29. Tanaka et al. does not expressly disclose the embodiment of Figure 5 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 5, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears tat the invention would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

31. Regarding claim 47, said light source is a light emitting diode 40.

32. Regarding claim 48, the height of said notched prisms increases as the distance from said central notched prism increases.

33. Regarding claim 50, each of said notched prisms includes an isosceles triangle.

34. Regarding claim 51, Tanaka et al. discloses a surface light emitting apparatus comprising: a light source 40 and an optical waveguide plate 20 including an end face 21 for introducing light emitted from said light source and a light emitting surface 22 outputting the light; said end face includes a light introducing portion comprising a plurality of notched prisms 27 which disperse incident including an light; a flat portion is disposed in a center of said light introducing portion; and wherein said plurality of notched prisms each include an apex angle which is equal to the other apex angles. See Figure 5. Tanaka et al. also does not expressly disclose a plurality of light sources and a plurality of light introducing portions in Figure 6. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a

plurality of light sources and a plurality of light introducing portions since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. MPEP 2144.04(VI)(B).

35. Regarding claim 52, said light source is a light emitting diode 40.

36. Regarding claim 53, a height each of said notched prisms increases as the distance from said flat portion increases.

37. Regarding claim 55, each of said notched prisms includes an isosceles triangle.

38. Regarding claims 11, 26, 30, 49 and 54, Tanaka et al. also discloses the claimed invention comprising notched prism 27 including a central notched prism disposed in a center of said light introducing portion (proximate LED 40), each including the same apex angle as the central notched prism, wherein the height of each said single notched prism increases as the distance from said light source increases. Tanaka et al. does not expressly disclose the height of the prisms to decrease as claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the heights decreasing from a central notched prism for the purpose of providing uniform brightness for peripheral light sources.

39. Regarding claims 21-24 and 43-45, Tanaka et al. discloses a surface light emitting apparatus comprising: a light source LED 40 and an optical waveguide plate including an end face 21 for introducing a light emitted from said light source and light emitting surface 22 for outputting the light; said end face including a light introducing portion comprising a plurality notched prisms 27 including a flat portion disposed in a center of said light introducing portion; and wherein each of said notched prisms has an apex angle. Said single notched prisms are

triangular prisms in said end face, and a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. See Figure 6.

40. Tanaka et al. does not expressly disclose the apex angles of each of said notched prisms disposed on the one side of the flat portion to be different than the apex angles of the other single notched prisms on the one side of said flat portion.

41. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide different apex angles since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum value of a result effective variable involves only routine skill in the art. MPEP 2144.05(II)(B).

42. It is noted that Tanaka et al. also discloses symmetry about the flat portion and therefore, the apex angles of a respective notched prism on one side equals the apex angle of a respective single notched prism on another side of said flat portion.

43. Tanaka et al. also does not expressly disclose a plurality of light sources and a plurality of light introducing portions in Figure 6. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of light sources and a plurality of light introducing portions since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. MPEP 2144.04(VI)(B).

Claim Rejections - 35 USC § 103

44. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

45. **Claims 4-6, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. as applied to claim 1 or 33 as applicable above, and further in view of Ebara et al. (JP 2001-118416 previously relied upon).**

46. Regarding claims 4-6, 36 and 37, Tanaka et al. discloses the claimed invention as discussed above, but does not expressly disclose triangular pyramids in said end face, or wherein an angle made by said outer incident face and said end face decreases as the distance from the central notched prism or flat portion increases, and an angle made by said inner incident face and said end face increases as the distance from the central notched prism or flat portion increases.

47. Ebara et al. discloses a surface emitting apparatus comprising triangular pyramids and wherein an angle made by said outer incident face and said end face decreases as the distance from the center increases, and an angle made by said inner incident face and said end face increases as the distance from the center increases.

48. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the varying angular structures as disclosed by Ebara et al. in the device of Tanaka et al. to provide a surface emitted light having high luminous intensity (see Abstract of Ebara et al.)

49. **Claims 7-9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. as applied to claim 1 above, and further in view of Busch et al. (U.S. Patent 5,477,239 previously relied upon).**

50. Regarding claims 8 and 10, Tanaka et al. discloses the claimed invention but does not disclose an increasing apex angle.

51. Busch et al. discloses an increasing apex angle of light reflective structure in a waveguide plate.

52. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the increasing apex angle for the purpose of increasing light transmission through the waveguide of Tanaka et al. (see column 4, lines 24-43 of Busch et al.). Furthermore, the variation of apex angles of Tanaka et al. would have been obvious since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum values of a result effective variable involves only routine skill in the art. See MPEP 2144.05(II)(B).

53. Regarding claims 7 and 9, a decreasing apex angle is not disclosed. However, a decreasing apex angle would have been obvious to one having ordinary skill in the art at the time the invention was made to provide increased light transmission for a centrally located light source since Busch et al. discloses the apex angle to decrease away form the light source.

54. **Claims 16-20 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. as in view of Busch et al.**

55. Regarding claims 16-20 and 39-42, Tanaka et al. discloses an LED light source 40, and an optical waveguide plate for a surface light emitting apparatus comprising: an end face for introducing light emitted from a light source; a light emitting surface 22 outputting light introduced from said end face; said end face includes a light introducing portion comprising a plurality of notched prisms 27 including a central notched prism disposed in a center of said light introducing portion (proximate LED 40); and wherein said plurality of notched prisms, including said central notched prism, each include an apex angle, and each said notched prisms has the

same apex angle as the central notched prism. Said single notched prisms are triangular prisms in said end face. A portion of said end face is also disposed between two adjacent notched prisms so as to form an interval. See Figure 2.

56. Tanaka et al. does not expressly disclose the embodiment of Figure 2 further wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion. However, Tanaka et al. discloses a further embodiment wherein a center of the light source is disposed adjacent to and spaced from a center of said light introducing portion in Figure 6.

57. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in Figure 2, the center of the light source disposed adjacent to and spaced from a center of the said light introducing portion since Applicant has not disclosed that the light source being disposed adjacent to and spaced from a center of said light introducing portion solves any stated problem or is for any particular purpose and it appears tat the invention would perform equally well, with the light source spaced or not spaced from the light introducing portion. Furthermore, one of ordinary skill in the art would have been motivated to make the modification in order to provide wider beam spreading of the input light for the purpose of providing diffuse input light.

58. Tanaka et al. disclose the claimed invention but does not disclose the apex angle of each of said notched prisms to be different than the apex angle of said central notched prism, wherein the apex angle of each of said notched prisms on one side of said central notched prism is different than the apex angles of the other notched prisms on the one side of said central notched prism, wherein the apex angle of each of said notched prisms on one side of said central notched

prism equals the apex angle of a respective notched prism on another side of said central notched prism, or wherein said apex angle made by the outer incident face increases as the distance from said central notched prism increases.

59. Busch et al. discloses an optical waveguide plate 40 for a surface light emitting apparatus comprising: an end face for introducing light emitted from a light source 24; light emitting surface outputting light introduced from said end face; said end face including a light introducing portion comprising a plurality of notched prisms including a central notched prism disposed in a center of said light introducing portion; wherein each of said notched prisms has an apex angle and the apex angle of each of said notched prisms is different than the apex angle of said central notched prism, wherein the apex angle of each of said notched prisms on one side of said central notched prism equals the apex angle of a respective notched prism on another side of said central notched prism, and wherein an apex angle made by the outer incident face increases as the distance from said central notched prism increases. See Figure 4.

60. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the increasing apex angle for the purpose of increasing light transmission through the waveguide of Tanaka et al. (see column 4, lines 24-43 of Busch et al.). Furthermore, the variation of apex angles of Tanaka et al. would have been obvious since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum values of a result effective variable involves only routine skill in the art. See MPEP 2144.05(II)(B).

Response to Arguments

61. Applicant's arguments filed December 28, 2005 have been fully considered but they are not persuasive. Although the light paths in Tanaka et al. may be different than the light paths of the present application, Tanaka et al. discloses or suggests the claimed structure as set forth in the rejections above. Furthermore, although not all of the embodiments disclosed by Tanaka et al. comprise the light source disposed adjacent to and spaced from a center of said light introducing portion, at least Figure 6 discloses such a configuration and the modification to provide the configuration in other embodiments would have been obvious to provide wider beam spreading of the input light for the purpose of providing diffuse input light. Variation of the apex angles would also have been obvious as being within the level of ordinary skill for the purpose of optimizing the light output pattern from the waveguide plate.

Conclusion

62. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Song whose telephone number is 571-272-2359. The examiner can normally be reached on M-Th 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sarah Y Song
Sarah Song
Primary Examiner
Group Art Unit 2874